

Application Serial Number 10/500,501
Response to Office Action
Dated March 30, 2006

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REMARKS / DISCUSSION OF ISSUES

Claims 1, 3-7 and 9-15 are presently pending. Claims 2 and 8 are cancelled and claims 13-15 are new.

Unless otherwise indicated, claims are amended for non-statutory reasons, to replace European-style claim phraseology with American-style claim language. The claims are not narrowed in scope and no new matter is added.

Priority Documents and Drawings

Applicants gratefully note the acknowledgement of receipt of all certified copies of the priority documents. Moreover, Applicants gratefully acknowledge the acceptance of the drawings filed on June 29, 2004.

Allowable Subject Matter

Applicants gratefully acknowledge the indication of allowability of claims 2-5 and 8-10. New claims 14 and 15 and the claims that depend therefrom reflect amendments to include the allowable subject matter. As a result of these amendments, Applicant submits that claims 3-5, 9, 10, 14 and 15 are in condition for allowance. Allowance is earnestly solicited.

New Claim

New claim 13 is drawn to a balanced gyrator. Support for this claim may be found, inter alia, in the filed application at page 6, lines 13-24. As detailed below, Applicants submit that this claim is patentable over the applied art.

Rejections under 35 U.S.C. § 102

Claims 1, 7 and 12 are rejected under 35 U.S.C. § 102(b) as being unpatentable over *Mattison, et al.* (U.S. Patent 6,577,212). For at least the reasons provided herein, Applicants respectfully submit that this rejection is improper and should be withdrawn.

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A proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991). (Emphasis added in each instance.)

Claim 1 is drawn to a balanced gyrator and features:

“...a plurality of interconnected feedforward and feedback MOS single-ended transconductors ...[and] means for providing each of the transconductors with a non-reciprocal feedback capacitance for rendering reciprocal the feedthrough capacitance of the transconductor thereby *neutralising the feedthrough capacitance of the gyrator.*”

Independent claims 6, 7 and 13 include similar features.

In an embodiment described in connection with Fig. 7, the balanced inputs 18, 19 and outputs 22, 23 experience equal and opposite signal voltages. As such, the currents fed through the capacitors C_f in a forward transconductor pair are always cancelled by equal and opposite currents fed through the capacitors C_f in a feedback transconductor pair. As a result, the balanced gyrator feedthrough capacitors are self-neutralized. (Kindly refer to page 6, lines 13-23 for support of the assertion.)

Applicants respectfully submit that the applied art as relied upon in the Office Action fails to disclose at least the noted portion of claim 1. To wit, the applied art to *Mattison, et al.* may disclose a gyrator having positive and negative transconductance and

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a feedback circuit, however there is no description of the interconnected feedforward and feedback MOS single-ended transconductors as claimed; or the disclosure of the arrangement of non-reciprocal feedback capacitance for rendering reciprocal the feedthrough capacitance. Moreover, the reference to *Mattison, et al.* does not mention feedforward transconductors or the aim of neutralizing feedthrough capacitance of the gyrator. Rather, the reference is drawn to accounting for channel delay of transistors in order to address instability of gyrators. For example, the reference recognizes that MOS transadmittance is not purely conductive and includes an analysis considering a non-quasistatic channel delay.

For at least the reasons set forth above, Applicants respectfully submit that there exists at least one difference between the features of claim 1 and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. By similar reasoning, this assertion applied to claims 7 and 13. Accordingly, Applicants submit that claims 1, 7 and 13 and the claims that depend therefrom are patentable over the applied art.

Rejections under 35 U.S.C. § 103

The rejection of claims 6 and 11 has been considered. The rejection of claim 6 applies on *Mattison, et al.* in substantially the same manner as the rejections of claims 1 and 7 noted above. Thus, for at least the reasons articulate above, Applicants submit that claim 6 and the claims that depend therefrom are patentable over the applied art.

Applicants further submit that claim 11 is patentable at least because of its dependence on patentable base claims.

While in no way conceding to the propriety of this rejection, Applicants submit that claims 6 and 11 are patentable. Applicants reserve their right to raise additional arguments regarding the patentability of claims 6 and 11 in future and further correspondence.

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Conclusion

In view the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account Number 50-0238 for any additional fees, including, but not limited to, the fees under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:

Phillips Electronics North America Corp.



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